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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,287	05/31/2001	Jong-Won Kim	300055.499	5253

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EXAMINER

LIN, KENNY S

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,287

Applicant(s)

KIM ET AL.

Examiner

Kenny Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/20/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-9 are presented for examination.
2. The information disclosure statement (IDS) submitted on August 20, 2001 has been considered by the examiner.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it fails to fall within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

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Allowable Subject Matter

5. Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and also overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms lack proper antecedence basis:

- i. Claim 4, line 15 – a PCMCIA slot card (i.e., said PCMCIA slot card);
- ii. Claim 5, line 6 – a CPU data (i.e., said CPU data);
- iii. Claim 6, line 4 – a synchronous DRAM control signal (i.e., said synchronous DRAM control signal);
- iv. Claim 6, line 4 – a CPU data (i.e., said CPU data);
- v. Claim 6, line 4 – a signal (i.e., said signal);
- vi. Claim 6, line 5 – a driving of the system controller (i.e., said driving of the system controller);
- vii. Claim 7, line 3 – a CPU data (i.e., said CPU data);

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- viii. Claim 8, lines 4 and 5 – a PCMCIA slot A interface unit (i.e., said PCMCIA slot A interface unit);
- ix. Claim 8, line 6 – an ADSL AFE controller (i.e., said ADSL AFE controller);
- x. Claim 8, line 8 – a resultant signal (i.e., said resultant signal);
- xi. Claim 9, line 4 – a PCMCIA slot B interface unit (i.e., said PCMCIA slot B interface unit);
- xii. Claim 9, line 10 – a HomePNA modulation/demodulation controller (i.e., said HomePNA...);
- xiii. Claim 9, line 13 – a HomePNA AFE controller (i.e., said HomePNA AFE controller);
- xiv. Claim 9, line 15 – a home network (i.e., said home network);
- xv. Claim 9, line 16 – a digital signal (i.e., said digital signal).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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9. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Pai et al (Pai), US 6,711,138.

10. As per claim 1, Pai taught the invention as claimed including a modular-type home gateway system comprising:

- a. A HomePNA controller connected to a home telephone line, for providing a home network interface (col.2, lines 30-38, 41-42);
- b. An ADSL controller connected to a outdoor telephone line, for providing an access network interface (col.2, lines 15-18, 47-51, 62-64); and
- c. A system controller for controlling the HomePNA controller (col.2, lines 10-12, 15-18, 47-62) and the ADSL controller,
- d. Wherein the HomePNA controller and the ADSL controller are modular type controllers detachably connected to the system controller through a predetermined interface (col.2, lines 47-49; fig.1, 124), and provides a bridge function between a home network and an access network (col.2, lines 59-64).

11. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Chiles et al (Chiles), US 2001/0036192.

12. As per claim 1, Chiles taught the invention as claimed including a modular-type home gateway system comprising:

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- a. A HomePNA controller connected to a home telephone line, for providing a home network interface (pp. 0043; HomePNA network);
- b. An ADSL controller connected to a outdoor telephone line, for providing an access network interface (pp. 0038, 0046, 0050; ADSL, xDSL); and
- c. A system controller for controlling the HomePNA controller and the ADSL controller (pp. 0038-0041, 0043-0045, 0050; home gateway; general-purpose computer),
- d. Wherein the HomePNA controller and the ADSL controller are modular type controllers detachably connected to the system controller through a predetermined interface (pp. 0032, 0039, 0044-0045; fig.1), and provides a bridge function between a home network and an access network (pp. 0008-0009, 0032, claim 13).

13. As per claim 2, Chiles taught the invention as claimed in claim 1. Chiles further taught that the predetermined interface is a PCMCIA interface (pp. 0039).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al (Chiles), US 2001/0036192, in view of "Official Notice".

16. As per claim 3, Chiles taught the invention substantially as claimed in claim 2. Chiles further taught the system controller includes:

- a. A CPU controlling the ADSL controller, the HomePNA controller and a PCMCIA interface unit, and performing a bridge function for achieving a wide-band service data transmission between the ADSL controller and the HomePNA controller (pp. 0037, 0044-0045).

17. Chiles further taught the system controller to include memory for storing programs (pp. 0036-0037). Chiles did not specifically teach a flash ROM; a synchronous DRAM; a non-volatile SRAM; a clock generator for generating a system clock; and a system reset part for generating an associated reset signal for operating the CPU and transmitting it to the CPU. However, it is obvious that memory may include ROM, DRAM and SRAM for storing information. It is also obvious to provide a clock to provide system clocking functions and using reset signal such as reboot to reset the processor. These hardware implementations are common basis needs of computing devices in the art. Official Notice is taken the concepts and advantages of using ROM, DRAM and SRAM for storing information in computing; using a clock generator in computing device to provide clocking information devices; and having a system reset part to send out reset signal to reset the processor are well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the

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teachings of Chiles and further provide the system controller various type of memory, a clock generator and the ability to reset the processor to enable Chiles' system to comprise the basic hardware needs of a computing device.

18. As per claim 4, Chiles taught the invention substantially as claimed in claim 3. Chiles further taught that the predetermined interface is a PCMCIA interface (pp. 0039). Chiles did not specifically teach that the PCMCIA interface unit includes two slots for interfacing with different protocols and that each interface units control address signal and converting data for transmissions. However, it is obvious to provide multiple PCMCIA slots for a computing device. It would have been obvious to implement a system controller to include more than one PCMCIA slots for connecting with communication devices. It is obvious to convert incoming data signal (PCMCIA data) to system controller readable formats (CPU data) in order for the system controller to perform further process using the data. Such conversion of data and signal feeding from an external source to the system controller through PCMCIA slots is essential for the system supporting various types of communication devices (pp. 0056-0057; ADSL, cable, satellite). Official Notice is taken that it would have been obvious to convert incoming data and signal to formats that the processor supports in order for the processor to carry out further persecution of the data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Chiles and further convert data and signals that are coming into the system controller through the PCMCIA interface unit in Chiles' system in order to render the data to a format that the system controller supports.

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19. As per claims 5-7, Chiles taught the invention substantially as claimed in claim 3. Chiles does not specifically teach in detail to receive, store, read and transmit data from slot A interface unit to slot B interface unit or vice versa. However, storing, reading received file and transmitting the received or stored file is obvious and well known in the art. Chiles taught the system controller to establish communication between the host system of the access network and the client device of the home network and enables transmission of information from either direction through the system controller (pp. 0005, 0043-0046, 0050, 0056-0057, 0060, 0065-0067, 0071). Chiles further taught the system controller to include storage for storing data (pp. 0045), accessing the data (pp. 0058; stripping header) and transmitting data (pp. 0005, 0008-0009, 0033). Furthermore, Chiles taught that the system controller may include different hardware and software to implement different home network system protocol and support the system controller (pp. 0057). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Chiles and further include software and hardware modules to implement specific processes of receiving, storing, accessing and transmitting of data or signals for communications in supporting different protocols (pp. 0057).

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Simonsen et al, US 2002/0031226.

Lo, US 2002/0026528.

Chang et al, US 6,701,406.

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Sun et al, US 6,212,263.

Asnaashari et al, US 5,564,055.

Burke et al, US 6,453,040.

Seazholtz et al, US 5,812,786.

Williams et al, US 6,397,343.

Moore, JR. et al, US 2002/0021465.

Okada, US 6,442,477.

Humpleman et al, US 6,546,419.

Keller, US 6,778,549.

Rabenko et al, US 6,819,682.

Stewart et al, US 6,483,902.

21. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl
December 2, 2004

Wen-Jan F.
12/2/04